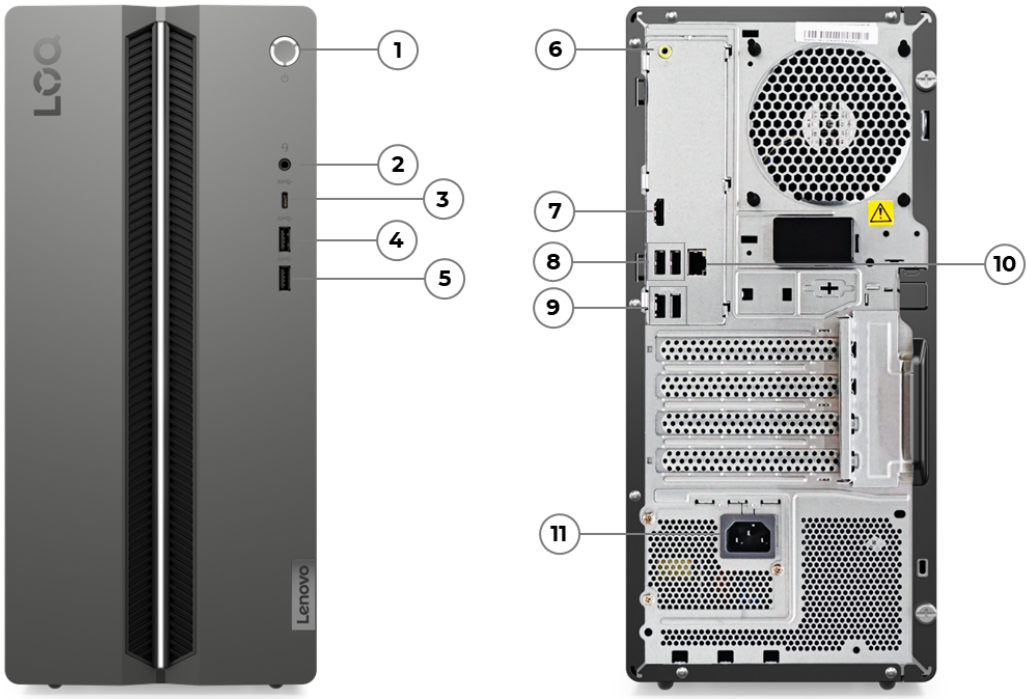
OVERVIEW



1. Power button	7. HDMI 2.1 TMDS
2. Headphone / microphone combo jack (3.5mm)	8. 2x USB-A (Hi-Speed USB)
3. USB-C (USB 20Gbps / USB 3.2 Gen 2x2)	9. 2x USB-A (USB 5Gbps)
4. USB-A (USB 10Gbps / USB 3.2 Gen 2)	10. Ethernet (RJ-45)
5. USB-A (USB 10Gbps / USB 3.2 Gen 2)	11. Power connector
6. 1x Audio-out (3.5mm)	

PERFORMANCE

Processor

Processor Family

Intel® HX Series Core Ultra 7 / 9 Processor (Series 2)

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics	NPU	Overall TOPS
Core 7 245HX	14 (6 P-core + 8 E-core)	14	P-core 2.9GHz / E-core 2.6GHz	P-core 5.1GHz / E-core 4.5GHz	24MB Intel® Smart Cache	Intel® Graphics, up to 6 TOPS	Intel® AI Boost, up to 13 TOPS	Up to 27 TOPS
Core Ultra 7 251HX	18 (6 P-core + 12 E-core)	18	P-core 2.9GHz / E-core 2.5GHz	P-core 5.1GHz / E-core 4.5GHz	30MB Intel® Smart Cache	Intel® Graphics, up to 6 TOPS	Intel® AI Boost, up to 13 TOPS	Up to 30 TOPS
Core Ultra 7 255HX	20 (8 P-core + 12 E-core)	20	P-core 2.4GHz / E-core 1.8GHz	P-core 5.2GHz / E-core 4.5GHz	36MB L2 Cache / 30MB Intel® Smart Cache	Intel® Graphics, up to 8 TOPS	Intel® AI Boost, up to 13 TOPS	Up to 33 TOPS
Core Ultra 9 275HX	24 (8 P-core + 16 E-core)	24	P-core 2.7GHz / E-core 2.1GHz	P-core 5.4GHz / E-core 4.6GHz	40MB L2 Cache / 36MB Intel® Smart Cache	Intel® Graphics, up to 8 TOPS	Intel® AI Boost, up to 13 TOPS	Up to 36 TOPS
Core Ultra 9 290HX Plus	24 (8 P-core + 16 E-core)	24	P-core 2.7GHz / E-core 1.8GHz	Max Turbo up to 5.5GHz / P-core 5.5GHz / E-core 4.7GHz	40MB L2 Cache / 36MB Intel® Smart Cache	Intel® Graphics, up to 8 TOPS	Intel® AI Boost, up to 13 TOPS	Up to 36 TOPS

AI (Artificial Intelligence)

AI PC Category

- AI PC[1]
- Non-AI PC

NPU

Integrated Intel® AI Boost, up to 13 TOPS

Notes:

[1] AI PCs have a Neural Processing Unit (NPU) designed to accelerate artificial intelligence and machine learning workloads on the device.

Operating System

Operating System**

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- No preload operating system

Graphics

Graphics[1]

Graphics	Type	Memory	AI TOPS (Peak)	Max Resolution	Connector	Key Features
NVIDIA GeForce RTX™ 3050	Discrete	6GB GDDR6	108	7680x4320@60Hz(HDMI®), 7680x4320@60Hz(DP)	1x HDMI® 2.1 FRL, 1x DP 1.4	DirectX® 12
NVIDIA GeForce RTX™ 4060	Discrete	8G GDDR6	-	7680x4320@60Hz(HDMI®), 7680x4320@60Hz(DP)	1x HDMI® 2.1a FRL, 3x DP 1.4a	DirectX® 12, OpenGL 4.6

NVIDIA GeForce RTX™ 5050	Discrete	8GB GDDR6	421	7680x4320@120Hz with DSC(HDMI®); 7680x4320@165Hz with DSC(DP)[2]	3x DP 2.1b UHBR20, 1x HDMI® 2.1b FRL	DirectX® 12
NVIDIA GeForce RTX™ 5060	Discrete	8G GDDR7	614	7680x4320@120Hz with DSC(HDMI®); 7680x4320@165Hz with DSC(DP)[3]	3x DP 2.1b UHBR20, 1x HDMI® 2.1b FRL	DirectX® 12
NVIDIA GeForce RTX™ 5060 Ti	Discrete	8G GDDR7	759	7680x4320@120Hz with DSC(HDMI®); 7680x4320@165Hz with DSC(DP)[4]	3x DP 2.1b UHBR20, 1x HDMI® 2.1b FRL	DirectX® 12
NVIDIA GeForce RTX™ 5060 Ti	Discrete	16G GDDR7	759	7680x4320@120Hz with DSC(HDMI®); 7680x4320@165Hz with DSC(DP)[5]	3x DP 2.1b UHBR20, 1x HDMI® 2.1b FRL	DirectX® 12
AMD Radeon™ RX 6600 LE	Discrete	8GB GDDR6	-	7680x4320@60Hz(HDMI®), 7680x4320@ 60Hz(DP)	3x DP 1.4a, 1x HDMI® 2.1 FRL	DirectX® 12, OpenGL 4.6, OpenCL 2.2

Notes:

[1] The information of integrated graphics are not applicable for the models with processor which has no integrated graphics inside (for the details, please refer to processor section).

[2], [3], [4], [5] DSC. Up to 8K 12-bit HDR at 165Hz with DP 2.1b, DSC. Up to 8K 12-bit HDR at 120Hz With HDMI® 2.1b.

Monitor Support

Monitor Support

Supports one independent display via onboard HDMI® port, more displays support via discrete graphics

Chipset

Chipset

Intel® HM870 chipset

Memory

Max Memory[1]

Up to 32GB DDR5-5600

Memory Slots

Two DDR5 SODIMM slots, dual-channel capable

Memory Type

DDR5-5600

Memory Protection

Non-ECC

Notes:

[1] The max memory is based on the test results with current Lenovo® memory offerings.

Storage

Max Storage Support[1]

Up to two drives, 2x M.2 SSD
• M.2 SSD up to 1TB each

Storage Type

Disk Type	Interface
M.2 2280 SSD	PCIe® NVMe®, PCIe® 4.0 x4

Notes:

[1] The max capacity of each disk type is based on the test results with current Lenovo® storage offerings.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip**

- High Definition (HD) Audio, Realtek® ALC623-CG codec
- 24-bit DAC supports 44.1K/48K/96K sample rate, 4 channel DAC supports 16/20/24-bit PCM format for independent two stereo channel or 2.1 audio playback
- 24-bit ADC supports 44.1K/48K/96K sample rate, 4 channel ADC supports 16/20/24-bit PCM format for independent two stereo channel audio inputs

Speakers

No speakers

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
310W	Fixed	92%	100-240V, 50-60Hz
400W	Fixed	92%	100-240V, 50-60Hz
500W	Fixed	92%	100-240V, 50-60Hz

DESIGN

Input Device

Keyboard

- Lenovo® Calliope Keyboard (USB connector), luna grey
- No keyboard

Mouse

- Lenovo® Calliope Mouse (USB connector), Luna Grey
- No mouse

Mechanical

Form Factor

Tower (17L)

Dimensions (WxDxH)[1]

170 x 279.7 x 376 mm (6.69 x 11.01 x 14.8 inches)

Packaging Dimensions (WxDxH)

270 x 525 x 395 mm (10.62 x 20.66 x 15.55 inches)

Weight[2]

Around 6.7 kg (14.77 lbs)

Packaging Weight

All models: Around 8 kg (17.63 lbs)

Case Color

Raven black (chassis), luna grey (front bezel)

Expansion Slots

- One PCIe® 4.0 x16, full height
- One PCIe® 3.0 x1, full-height
- Three M.2 slots (one for WLAN, two for SSD)

Cooling System (Fan & Cooler)**

- 1x front system fan, 1x rear system fan
- 1x front system fan, 1x rear system fan with light effect[3]
- 1x rear system fan
- 1x rear system fan with light effect[4]

Notes:

[1] The system dimensions may vary depending on configurations.
[2] The system weight is approximate and based on results in Lenovo® lab, which varies depending on the source of component, variance of the distribution of each component, and manufacturing process. It may not be the exact weight for each specific model.
[3], [4] Only for EMEA models with transparent side panel

CONNECTIVITY

Network

WLAN + Bluetooth®[1]**

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.2, M.2 card
- Wi-Fi® 6E, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.2, M.2 card
- Wi-Fi® 7, 802.11be 2x2 Wi-Fi® + Bluetooth® 5.4, M.2 card
- No WLAN and Bluetooth®

Onboard Ethernet

Gigabit Ethernet, 1x RJ-45

Notes:

[1] Wi-Fi® operation (including Wi-Fi® 6, Wi-Fi® 6E, Wi-Fi® 7, etc.) is subject to the regulatory requirements of each country. Bluetooth® may operate at a lower version than hardware design depending on the factors such as operating system, driver, etc.

Ports[1]

Front Ports

- 1x USB-C® (USB 20Gbps / USB 3.2 Gen 2x2)
- 2x USB-A (USB 10Gbps / USB 3.2 Gen 2)
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports[2]

- 2x USB-A (Hi-Speed USB / USB 2.0)
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x HDMI® 2.1 TMDS
- 1x Ethernet (RJ-45)
- 1x audio-out (3.5mm)
- 1x power connector

Notes:

[1] The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB4® 20Gbps / USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
USB4® 40Gbps (USB 40Gbps): 40 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s.
Thunderbolt™ 5: 80 Gbit/s (bidirectional), up to 120 Gbit/s in bandwidth boost mode for video-intensive applications.
[2] For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in chipset

BIOS Security

- Administrator password

- Hard disk password
- More BIOS security features, please visit BIOS Simulator

SERVICE

Warranty[1]

Base Warranty**

- 1-year mail-in service
- 1-year courier or carry-in service
- 1-year limited onsite service
- 2-year courier or carry-in service
- 3-year courier or carry-in service

Notes:

[1] The warranty upgrades may be bundled with some models, please check the "Included upgrade" column in the specific model's configurations. For more service extensions, please go to https://smartfind.lenovo.com/. To learn more details of warranty policy, please access https://support.lenovo.com/warrantylookup/warrantypolicy.

OPERATING REQUIREMENTS

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Relative Humidity

- Operating: 20% to 80%
- Storage: 20% to 90%

Altitude

- Operating: -15.2 m (-50 ft) to 3048 m (10,000 ft)
- Storage: -15.2 m (-50 ft) to 10668 m (35,000 ft)

CERTIFICATIONS

Green Certifications[1]

Green Certifications

- (Optional) ENERGY STAR® 9.0
- ErP Lot 3
- RoHS compliant

Notes:

[1] The items listed under the "Green Certifications" section may not only refer to certification but also registration or self-declaration. For ESG & regulatory compliance documents, please visit https://compliance.lenovo.com.

- Feature with ** means that only one option listed under the feature can be configured on selected models. Please refer to the model configuration for specific information.
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